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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/591,769	06/12/2000	Alain T. Rappaport	004239.P001	4769

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EXAMINER

PORTER, RACHEL L

ART UNIT

PAPER NUMBER

3626

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

SK

Office Action Summary	Application No.	Applicant(s)	
	09/591,769	RAPPAPORT, ALAIN T.	
	Examiner	Art Unit	
	Rachel L. Porter	3626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 12 June 2000.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-56 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-56 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.

4) Interview Summary (PTO-413) Paper No(s). _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Notice to Applicant

1. This communication is in response to the application filed 6/12/00. Claims 1-56 are pending. The IDS filed 12/8/00 has been entered and considered.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 21-32, 42, and 55-56 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. ("Usefulness" may be evidenced by, but

not limited to, a specific utility of the claimed invention. "Concreteness" may be evidenced by, but not limited to, repeatability and/or implementation without undue experimentation. "Tangibility" may be evidenced by, but not limited to, a real or actual effect.]

As per claims 21-32 and 55-56, it is unclear as to which recognized statutory class of invention the "database" of claims 21 and 55 is directed. In particular, a "database" is not a process or method, as it lacks a series of steps. Since the database is not fixed in some tangible medium, it is not an "article of manufacture". Furthermore, a "database" is not recognized as a composition of matter. While the claims recite a list of data contained in the database, it is not considered a system, as there is no specific recitation of *machine or system components*.

Under the guidance of recent case law, the requirements of 35 U.S.C. 101 are met when "the practical application of the abstract idea produces a useful, concrete, and tangible result" (*State Street Bank & Trust Co. vs. Signature Financial Group, Inc.*, 47 USPQ2d 1596, 1601-02 (Fed. Cir. 1998)). In general, a database is conceptually useful for storing information. Claims 21-32 and 55-56 merely recite non-functional descriptive material, as there is no recitation of executable code or data structure embodied on any medium. Moreover, the recited databases do not impart any specific functionality to any tangible system components. Thus, the "databases" described in claims 21-32 and 55-56, are not tangibly embodied, and fail to produce a concrete and tangible result.

In light of the above, it is respectfully submitted that the claimed invention, as described in claims 21-32 and 55-56, although useful, does not have a tangible and

concrete result, and thus fails to recite the practical application of an abstract idea to satisfy the requirements of 35 U.S.C. 101.

As per claim 42, the present claim recites “logic for. . .” in the body. Data structures not embodied on a computer readable media are considered descriptive material. They are therefore considered non-statutory because they are not capable of causing a functional change in a computer. As drafted, the claim fails to define any structural and functional interrelationships between the “logic” and other elements of a computer that permit the computer program’s function to be realized. (See MPEP § 2106) The Examiner suggests the following: “computer readable code embodied on a computer readable medium for receiving/generating/executing. . .” or similar wording for the present claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-37 and 46-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirk et al (US Patent No. 5,768,578) in view of Evans (US Patent No. 5,924,074).

In reference to claim 1, Kirk et al teach a data searching method comprising:

- querying to retrieve a list of data sources data sources from one or more

databases based on received information (col. 4, lines 24-31)

- generating one or more documents containing list of data sources retrieved from database (Figure 8, col. 4, lines 57-65)

Kirk et al teach a system and methods for retrieving information from one or many database(s) and providing a visual representation (i.e. list) of data sources of interest to the user based on his/her queries. Kirk et al do not specifically teach a method wherein the searching is done in relation to medical information received and the healthcare provider is requesting the information. Evans places the user and queries in the context of healthcare providers accessing patient records/data. Evans teaches a method wherein a healthcare provider receives medical information (i.e. patient records) and can query a database for information relating to data in the patient's records (col. 5, lines 10-25). At the time of the Applicant's invention, it would have been obvious to one of ordinary in the art to combine the teachings of Kirk et al with the teachings of Evans. One would have been motivated to do this to facilitate a treating healthcare provider's access to a wide range of critical medical data relating to his/her patients.

In reference to claims 2-5, Kirk and Evans teach the system of claim 1 as explained in the rejection of claim 1. Kirk et al do not specifically teach a method wherein the searching is done in relation to medical information and the healthcare provider is requesting the information. As such, Kirk does not disclose retrieving data using various health codes. Evans teaches a data retrieval system/method wherein receiving data in the patient's records comprises accessing procedure codes or

diagnosis codes for procedures/diagnoses that the patient has undergone/received and wherein the codes are CPT or ICD codes. (column 9, lines 4-7, figure 20; column 11, lines 14-27). At the time of the Applicant's invention, it would have been obvious to one of ordinary in the art to combine the teachings of Kirk et al with the teachings of Evans for the reasons provided in the rejection of claim 1.

In reference to claims 6-7, Kirk al teach a data retrieval method wherein the data source is referenced by an address and this address comprises a URL (i.e. a web address) (figure 8, column 4, lines 57-65)

In reference to claims 8-17 and 20 Kirk et al teach different methods of querying and retrieving data by using semantic/conceptual linkages between the user's query terms and related concepts to develop a visual representation of information sites of interest to the user. (figure 8; column 5, lines 23-67, column 6, lines 1-25)

Furthermore, Kirk teaches methods of retrieving information from these sites. (column 6, lines 4-16), but does not teach the use of medical codes to retrieve information. Evans puts the user query/ and data retrieval in the context of a healthcare provider accessing patient records with procedure and diagnostic codes. (figures 19-20, column 9, lines 4-7, column 11, lines 10-30). At the time of the Applicant's invention, it would have been obvious to one of ordinary in the art to combine the method of Kirk et al with the teachings of Evans for the reasons as explained in the rejection of claim 1.

In reference to claims 18-19, Kirk teaches a system that operates via the Internet (col. 2, lines 10-38) but does not disclose that the healthcare provider can provide feedback. Evans teaches a method wherein the healthcare provider can provide

feedback on information contained in the retrieved documents (column 6, lines 27-31).

At the time of the Applicant's invention, it would have been obvious to one of ordinary in the art to combine the teachings of Kirk et al with the teachings of Evans for the reasons provided in the rejection of claim 1.

In reference to claim 21-22, Kirk teaches a system including a queryable knowledge base (Figure 1, Figure 6). Kirk also discloses a system including a list of data sources based on definitions. (column 5, lines 23-36; column 7, lined 3-18) A visual representation of sites of interest to the user (i.e. list) (figure 8) based on user queries is generated. The visual representation is developed using a site description language which allows semantic linkages to be drawn between user query terms and related "concepts, roles and object codes" (i.e. definitions). Kirk et al do not specifically teach a system wherein the knowledge base includes medical information. Evans teaches an information database comprising:

- a first code corresponding to a medical procedure (Figures 20-21; col. 9, lines 4-7)
- a list of one or more definitions correspond to the first code (Figures 20-21; col. 9, lines 4-7)

At the time of the Applicant's invention, it would have been obvious to one of ordinary in the art to combine the teachings of Kirk et al with the teachings of Evans. One would have been motivated to do this to facilitate a treating healthcare provider's access to a wide range of critical medical data relating to his/her patients.

In reference to claims 23-25, Kirk et al teaches different methods of querying and

retrieving data by using semantic/conceptual linkages between user's query and related concepts to develop a visual representation of information sites of interest to the user. (figure 8; column 5, lines 23-67, column 6, lines 1-25) Furthermore, Kirk teaches methods of retrieving information from these sites. (column 6, lines 4-16) Evans puts the user query/ and data retrieval in the context of a healthcare provider accessing patient records with procedure and diagnostic codes. (figures 19-20, column 9, lines 4-7, column 11, lines 10-30). At the time of the Applicant's invention, it would have been obvious to one of ordinary in the art to combine the teachings of Kirk et al with the teachings of Evans for the reasons provided in the rejection of claim 21.

In reference to claims 26-30, Kirk teaches a system including a queryable knowledge base (Figure 1, Figure 6) and a list of data sources based on definitions. (column 5, lines 23-36; column 7, lined 3-18). Kirk et al do not specifically teach a system wherein the knowledge base includes medical information. Evans teaches a method wherein the codes comprise several types of medical codes. (figure 14, column 9, lines 4-7) At the time of the Applicant's invention, it would have been obvious to one of ordinary in the art to combine the teachings of Kirk et al with the teachings of Evans for the reasons provided in the rejection of claim 21.

In reference to claims 31-32, Kirk al teach a data retrieval method wherein the data source is referenced by an address and this address comprises a URL (figure 8, column 4, lines 57-65)

In reference to claims 33-37, Kirk et al teach a method comprising:

- generating one or more queries based upon the user's subject of interest;

Art Unit: 3626

- identifying one or more documents based upon one or more queries;
- performing a selection process to select certain documents based on a selection criteria

Kirk et al teach different methods of generating and refining queries, and retrieving data by using semantic linkages between the user's query and other concepts to develop a list of possible information sites of interest to the user. (figure 8; column 5, lines 23-67, column 6, lines 1-25) Furthermore, Kirk teaches methods of selecting and retrieving information (i.e. documents) from these sites. (column 6, lines 4-16) Evans puts the user query/ and data retrieval in the context of a healthcare provider accessing patient records using medical codes including procedure and diagnostic codes. (figures 19-20, column 9, lines 4-7, column 11, lines 10-30). At the time of the Applicant's invention, it would have been obvious to one of ordinary in the art to combine the teachings of Kirk et al with the teachings of Evans. One would have been motivated to do this to facilitate a treating healthcare provider's access to a wide range of critical medical data relating to his/her patients.

In reference to claims 46-49, the limitations of these claims are addressed in the discussion of claims 1,2, 4 and 8 above.

In reference to claims 50-54, the limitations of these claims are addressed in the discussion of claims 33-37 above.

5. Claims 38-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans.

In reference to claim 38-39 and 42-45, Evans teaches a system wherein providers

can access information regarding medical procedures and diagnoses from a reference database (column 11, lines 10-64). Furthermore the system includes a patient data repository (i.e. database) which contains records, including patient ID numbers, diagnosis codes and procedure codes. (column 9, lines 4-14) Information is transferred, received and stored between the database as the user (i.e. healthcare provider) requests information, including procedure and diagnosis information, from the different databases (i.e queries the system for data content). Furthermore, as shown in Figure 24, the system operates over a variety of computer networks including the world wide web, LAN's and WAN's. Evans does not specifically teach that the functions of transferring, receiving and storing are performed by system servers. At the time of the Applicant's invention, it would have been obvious to one of ordinary skill in the art to enable the system servers in the system of Evans to retrieve, transmit, receive and store the data as needed to satisfy the provider's requests for procedure information (i.e. satisfy the user's query). One would have been motivated to do this to facilitate physician access to patient data in a variety of formats that is otherwise difficult to access when needed for analysis and to further enhance the quality of patient care.

(See Evans: col. 2, lines 5-64)

In reference to claims 40-41, Evans teaches a system wherein the one or more documents are accessible over several computer networks including the Internet. (col. 12, lines 56-67, col. 13, lines 1-30)

6. Claims 55-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans in view of Rozen et al (USPN 6,073,106)

In reference to claim 55, Evans teaches a method the uses a database comprising:

- a list of patients (column 8, lines 19-28)-a patient repository stores patient lists and patient records
- a set of documents for each patient, generated based upon information received from the healthcare provider after performing a procedure for the patient, said documents being accessible by a computer network (column 8, lines 61-67; column 9, lines 14; column 12, lines 56-60)

The patient repository stores a list of patients and patient records (i.e. set of documents) which are accessed by a physician to be annotated or used as a reference. The method taught by Evans may operate over several types of computer networks. Evans does not specifically disclose that the patient may access his/her patient data. Rozen et al teach a system wherein the patient may access his/her data via a network (col. 7, lines 15-39). At the time of the Applicant's invention, it would have been obvious to one of ordinary skill in the art to modify the system of Evans with the teaching of Rozen to allow patients to access their medical data via a network. One would have been motivated to do this to enable the patient to provide up-to-date data regarding medical conditions and to ensure that the medical history is as accurate as possible for treating healthcare providers. (See Rozen, col. 1, lines 16-45; col. 2, line 4-38; col. 4, line 66- col. 5, line 11)

In reference to claim 56, Evans teaches a database wherein the information received includes procedure codes, (column 9, lines 4-14). Evans does not teach that

procedure codes are used to retrieve one or more lists or data sources to be included in the patient documents. However, at the time of the applicant's invention, it would have been obvious to one of ordinary skill in the art to make the data retrievable by different codes or information to be included the documents. One would have been motivated to do this to make it easier to access desired information.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Bessette (USPN 6,263,330) teaches a system for providing access to patient data from a plurality of sources.
- Evans et al (USPN 6,266,675) teach a system for querying of relational databases for patient data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel L. Porter whose telephone number is 703-305-0108. The examiner can normally be reached on M-F, 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on (703)305-9588. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-7687 for regular communications and (703)305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1113.

RP

March 23, 2003

Alexander Harunowicz
Alexander Harunowicz
Patent Examiner
AU 3626